WHAT IS CLAIMED IS:

1. Apparatus for providing power to at least one subscriber via a telecommunications line, comprising:

a power converter operatively coupled to said telecommunications line and adapted to generate a voltage on said line;

a gateway module having modulator/demodulator apparatus operatively coupled to said telecommunications line, said module being adapted to extract power from said voltage on said telecommunications line; and

at least one adapter unit operatively coupled to said telecommunications line and further configured to extract power from said voltage and provide said power to an extension device.

2. The apparatus of Claim 1, wherein said gateway module further comprises a controller operatively coupled to said power converter, said controller cooperating with said power converter to regulate the power provided via said telecommunications line.

3. The apparatus of Claim 2, wherein said controller communicates with said power converter via said telecommunications line to regulate at least the voltage applied to said line by said power converter.

4. The apparatus of Claim 1, wherein said gateway module further comprises a power line interface in data communication with said modulator/demodulator, said power line interface adapted to transmit data over at least one power line local to said gateway module.

5. The apparatus of Claim 1, wherein said gateway module further comprises a wireless interface in data communication with said modulator/demodulator and adapted to at least receive radio frequency signals from a remote device.

6. The apparatus of Claim 1, wherein said at least one adapter unit is self-installable by said at least one subscriber.

7. The apparatus of Claim 6, wherein said gateway module is self-installable by said at least one subscriber.

8. The apparatus of Claim 1, wherein said power converter further comprises a ground fault detector circuit adapted to detect faults on said telecommunications line.

9. A digital subscriber line (DSL) apparatus, comprising:

modulator/demodulator apparatus adapted to receive and transmit signals over at least one telecommunications line; and

power extraction circuitry operatively coupled to said telecommunications line and adapted to generate power for said modulator/demodulator apparatus from voltage applied to said line.

10. The DSL apparatus of Claim 9, further comprising an interface module operatively coupled to a power line and said modulator/demodulator apparatus, said interface module being adapted to transmit and receive data over said power line.

11. The DSL apparatus of Claim 10, wherein said power line comprises a single-phase alternating current (AC) power distribution line.

12. The DSL apparatus of Claim 11, wherein said interface module is compliant with the HomePlug Powerline Alliance 1.0 Specification.

13. The DSL apparatus of Claim 9, further comprising a local network interface adapted to communicate with at least one other node in data communication with said DSL apparatus.

14. The DSL apparatus of Claim 13, wherein said local network interface comprises a home phone network (HPN) gateway adapted to communicate with said at least one node via installed telephone wiring.

15. The DSL apparatus of Claim 9, further comprising a wireless interface in data communication with said at least one telecommunications line and said modulator demodulator

apparatus, said wireless interface being configured to receive data from a portable device and communicate said data to said modulator/demodulator apparatus.

16. The DSL apparatus of Claim 15, wherein said wireless interface is compliant with the Bluetooth 2.4 GHz wireless standard.

17. The DSL apparatus of Claim 15, wherein said wireless interface is compliant with IEEE Std. 802.11.

18. The DSL apparatus of Claim 15, wherein said wireless interface utilizes direct sequence spread spectrum having a pseudo-noise (pn) spreading code.

19. The DSL apparatus of Claim 9, further comprising a wireless interface in data communication with said at least one telecommunications line and said modulator demodulator apparatus, said wireless interface being configured to receive data from a portable device and communicate said data to said modulator/demodulator apparatus.

20. The DSL apparatus of Claim 9, wherein said

21. A method of providing power over a communications line to a subscriber, comprising:

providing a power source operatively coupled to a first node of said line;

providing a power extractor operatively coupled to a second node of said line;

generating a voltage on said line using said power source;

generating power at said second node using said voltage and said power extractor.

22. The method of Claim 21, further comprising regulating said voltage applied to said line based at least in part on signals generated at said second node.

23. The method of Claim 21, further comprising adjusting said voltage applied to said line based at least in part on the distance between said first node and said second node.

24. The method of Claim 22, further comprising adjusting said voltage applied to said line based at least in part on the distance between said first node and said second node.

25. The method of Claim 21, further comprising:

providing a plurality of power extractors at respective ones of a plurality of additional nodes, said additional nodes being in electrical communication with said second node at the location of said subscriber;

extracting power from said line using said plurality of power extractors; and

distributing said extracted power to respective ones of a plurality of extension devices coupled to respective ones of said power extractors.

26. The method of Claim 21, further comprising:

detecting ground faults present on said telecommunications line; and

in response to said detected faults, controlling the operation of said power source.

27. The method of Claim 21, further comprising controlling the polarity of said voltage generated on said telecommunications line in order to mitigate the corrosion thereof.

28. Telecommunications interface apparatus, comprising:

a first port in data communication with a telecommunications line;

a second port in data communication with an extension device;

first circuitry adapted to detect the configuration of said extension device; and

second circuitry adapted to be variably configured based at least in part on said detected configuration.

29. The apparatus of Claim 28, wherein said extension device comprises a standard telephone, and said second circuitry is configured to generate a transmit/receive dial tone compatible with said telephone.

30. The apparatus of Claim 28, wherein said extension device comprises an HPN device, and said second circuitry is configured to provide a direct signal path between said first and second ports.

31. The apparatus of Claim 28, further comprising:

third circuitry adapted to provide power to said second port;

wherein said extension device comprises a digital multi-line telephone, and said second circuitry is configured to provide a direct signal path between said first and second ports, said third circuitry providing power to said digital multi-line phone via said second port.

32. Telecommunications apparatus, comprising:

a telephonic device; and

line power circuitry in electrical communication with said telephonic device, said circuitry adapted to derive power from a telecommunications line to which said apparatus is operatively coupled, and provide said power to said telephonic device.

33. The apparatus of Claim 32, wherein said telephonic device comprises a multi-line telephone.

34. The apparatus of Claim 33, wherein said telecommunications line carries at least one derived telephone line.

35. The apparatus of Claim 34, further comprising selection apparatus adapted to select one or more of said at least one derived telephone lines.

36. The apparatus of Claim 35, wherein said selection apparatus comprises a switch.

37. The apparatus of Claim 35, wherein said selection apparatus comprises an address generator, said address generator generating at least one unique address, said at least one unique address being used to select said derived telephone line associated with said telecommunications apparatus.

38. The apparatus of Claim 32, wherein said line power circuitry is further adapted to:

(i) automatically sense the configuration of said telephonic device; and

(ii) alter the operation of said line power circuitry in response to said sensed configuration.

39. Apparatus for providing power to at least one subscriber via a telecommunications line, comprising:

a low frequency splitter operatively coupled to said telecommunications line;

a power conversion circuit adapted to generate electrical potential and apply such potential to said telecommunications line via said splitter; and

a power control circuit operatively coupled to said low frequency splitter and said power conversion circuit, said control circuit adapted to control said electrical potential applied to said line based at least in part on one or more parameters.

40. The apparatus of Claim 39, wherein said low frequency splitter comprises a plurality of inductors.

41. The apparatus of Claim 40, wherein the inductance values of said inductors are selected so as to provide a resonance condition for optimal response at a designated frequency.

42. The apparatus of Claim 40, wherein said power generation circuit provides at least a portion of the total inductance of said apparatus.

43. The apparatus of Claim 39, further comprising ground fault detection circuitry operatively coupled to said power conversion circuit such that the output of said power conversion circuit is controlled under ground fault conditions.

44. The apparatus of Claim 39, further comprising a regulator operatively coupled to said power conversion circuit and adapted to control the magnitude of said electrical potential.

45. The apparatus of Claim 44, wherein said regulator is further adapted to control the polarity of said voltage.

46. A subscriber-installable telecommunications system adapted to interface with a telecommunications line, comprising:

a gateway module having:

modulator/demodulator apparatus operatively coupled to said telecommunications line and configured to transmit and receive signals; and

power extraction apparatus operatively coupled to said telecommunications line and adapted to generate electrical power from voltage present on said telecommunications line; and

a plurality of adapter modules operatively coupled to said telecommunications line and configured to generate electrical power from said voltage present on said line for use by at least one extension device operatively coupled to each of said adapter modules.

47. The system of Claim 46, wherein at least a portion of said plurality of adapter modules include means for frustrating removal of said modules after installation.

48. The system of Claim 46, wherein said modulator/demodulator apparatus is adapted to transmit and receive both voice and broadband data signals over said telecommunications line.

49. The system of Claim 46, wherein said modulator/demodulator comprises an asymmetric DSL (ADSL) modem.

50. The system of Claim 46, further comprising power control circuitry associated with said gateway module, said power control circuitry being adapted to cooperate with a power converter at a distant end of said telecommunications line in order to regulate said voltage.

51. The system of Claim 46, wherein said adapter modules are further configured to be compatible with a plurality of different types of extension devices.

52. The system of Claim 51, wherein said extension devices are selected from the group comprising:

(i) standard analog telephonic devices;

(ii) HPN devices; and

(iii) digital telephones.

53. The system of Claim 51, wherein said adapter modules are further configured to (i) auto-sense the configuration of the extension device coupled thereto, and (ii) alter its own the configuration in response to the sensed configuration of said extension device.

54. A method of interfacing a telecommunications line having a voltage present thereon with a line-powered extension device operatively coupled thereto, comprising:

providing an interface circuit having a plurality of different configurations associated therewith;

detecting, using said interface circuit, the configuration of said extension device; and

altering the configuration of said interface circuit in response to said detected extension device configuration.

55. The method of Claim 54, wherein said interface circuit comprises a an HPN circuit and a SLIC, and said act of altering the configuration comprises:

(i) detecting the absence of an HPN signal from said extension device;

(ii) requesting a dial tone via said telecommunications line; and

upon receipt of said requested dial tone; and

(iii) configuring said SLIC to pass said dial tone to said extension device.

56. The method of Claim 55, wherein said interface circuit further comprises a power extractor, and said act of altering further comprises:

generating power from said voltage using said power extractor; and

providing said generated power to said extension device.

57. A method of installing a subscriber-side telecommunications system, said system being adapted for use with a telecommunications line having a plurality of extensions and a voltage present thereon, comprising:

installing a first module at a first of said plurality of extensions;

installing a plurality of second modules at respective ones of said plurality of extensions; and

installing a plurality of extension devices at respective ones of said plurality of second modules, at least a portion of said extension devices being interfaced via said telecommunications line.

58. Apparatus for providing power to at least one subscriber via a telecommunications line, comprising:

power conversion means operatively coupled to said telecommunications line for generating a voltage on said line;

modulator/demodulator means operatively coupled to said telecommunications line;

means for extracting power from said voltage on said telecommunications line; and

at least one adapter unit operatively coupled to said telecommunications line and further configured to extract power from said voltage and provide said power to an extension device.

59. A subscriber-installable telecommunications system adapted to interface with a telecommunications line, comprising:

a gateway module having:

modulator/demodulator apparatus operatively coupled to said telecommunications line and configured to transmit and receive signals;

power extraction apparatus operatively coupled to said telecommunications line and adapted to generate electrical power from voltage present on said telecommunications line;

controller apparatus operatively coupled to said telecommunications line and said power extraction apparatus, said controller apparatus being adapted to communicate with the source of said voltage and cooperate therewith to control said voltage; and

a network interface; and

a plurality of adapter modules operatively coupled to said telecommunications line and configured to generate electrical power from said voltage present on said line for use by at least one extension device operatively coupled to each of said adapter modules.